Prof. dr Joshua Lederberg, The Rockefeller University New York New York 10021



Dear Sir,

Thank you very much for the reprint of your article "Genetic recombination in bacteria: a discovery account."

I will profit of it in the seminaries with the students of microbiology of our university discussing the birth of microbial and molecular genetics.

I peruse it and found it very interesting. But there is

still one question I have no answer to, namely,how it was that one of the doubly auxotrophic mutants of the strain E.coli K12 /met E1 / appeared F while the second Thr leu F? As to me I am as formaly involved in microbial genetic.

One of the topic of my interest is the genetic of antigenic variation in Shigella flexneri bacilli.

Working with the bacteria of 1b serctype I find out that they mutate to serotype 3b as a result of less of type antigen I and simultaneous acquissition of type antigen III. The antigen mutants can be selected directly with a phage /mutants with antigen III are resistant/ or undirectly through passagin on mice original 1 b serotype by intraperitonal injection.

Immunochemical basis of this antigenic mutation is well known; the mutant has O-specific side chain deprived of glucose, so

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probably its UDP-glucose transferase is inactive or absent.

But, what seems to be the most interesting this antigenic mutant is lysogenic and fage carried in the form of profage kils original 1b form.

So the problem is of origin of prophage as the results of this antigenic mutation?

Excuse me professor that I am presenting you my problems, but the general mood of your article, you were so kind to send me, emboldened me. I do not suppose to get the answer.

Very truly your .

Jackson

Wrocław, 15 July 1988.